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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648- XA912

Taking and Importing Marine Mammals; U.S. Navy Training in the Hawaii Range Complex

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of issuance of a Letter of Authorization.

SUMMARY: In accordance with the Marine Mammal Protection Act (MMPA), as amended, and implementing regulations, notice is hereby given that NMFS has issued a Letter of Authorization (LOA) to the U.S. Navy (Navy) to take marine mammals incidental to training and research activities conducted within the Hawaii Range Complex (HRC) for the period of February 9, 2012, through January 5, 2014.

DATES: This Authorization is effective from February 9, 2012, through January 5, 2014.

ADDRESSES: The LOA and supporting documentation may be obtained by writing to P. Michael Payne, Office of Protected Resources, NMFS, 1315 East-West Highway, Silver Spring, MD 20910, or by telephoning one of the contacts listed here.

A copy of the application used in this document may be obtained by writing to the address specified above, telephoning the contact listed below (see FOR FURTHER INFORMATION CONTACT), or visiting the internet at:

<http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. Documents cited in this notice may also be viewed, by appointment, during regular business hours, at the aforementioned address.

FOR FURTHER INFORMATION CONTACT: Michelle Magliocca, Office of Protected Resources, NMFS, (301) 427-8401.

SUPPLEMENTARY INFORMATION:

Background

Section 101(a)(5)(A) of the MMPA (16 U.S.C. 1361 et seq.) directs NMFS to allow, upon request, the incidental taking of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing), if certain findings are made by NMFS and regulations are issued. Under the MMPA, the term “take” means to harass, hunt, capture, or kill or to attempt to harass, hunt, capture, or kill marine mammals.

Authorization may be granted for periods of 5 years or less if NMFS finds that the taking will have a negligible impact on the species or stock(s), and will not have an unmitigable adverse impact on the availability of the species or stock(s) for certain subsistence uses, and if the permissible methods of taking and requirements pertaining to the monitoring and reporting of such taking are set forth.

Regulations governing the taking of marine mammals by the Navy incidental to training and research activities conducted within the Hawaii Range Complex (HRC) became effective on January 5, 2009 (74 FR 1456, January 12, 2009). An interim final rule (amending regulations to allow for greater flexibility in the types and amount of sound sources used by the Navy) became effective on February 7, 2011 (76 FR 6699, February 8, 2011), and was finalized on February 1, 2012 (77 FR 4917) in a final rule modification that also amended regulations to allow for multi-year LOAs. NMFS issued the Navy a 1-year LOA on January 10, 2012, which is superseded by the 2-year LOA detailed in this notice. For more information, please refer to those documents.

These regulations include mitigation, monitoring, and reporting requirements and establish a framework to authorize incidental take through the issuance of LOAs.

Summary of Request

On August 15, 2011, NMFS received a request from the Navy for a 2-year renewal of an LOA issued on February 7, 2011, for the taking of marine mammals incidental to training and research activities conducted within the HRC under regulations issued on January 5, 2009 (74 FR 1456, January 12, 2009). The request also proposed additional mitigation measures tailored to the use of timed-delay firing devices (TDFDs) during mine neutralization training to ensure that effects to marine mammals resulting from these activities would not exceed what was originally analyzed in the final rule (74 FR 1456, January 12, 2009). The potential effects of mine neutralization training on marine mammals were comprehensively analyzed in the Navy's 2009 final rule and mine neutralization training has been included in the specified activity in the associated 2009, 2010, and 2011 LOAs. However, the use of TDFDs and the associated mitigation measures had not been previously contemplated, which is why NMFS provided the proposed modifications to the public for review. A detailed description of TDFDs, underwater detonation training, and how the Navy derived their new mitigation measures was provided in the proposed LOA (76 FR 71322, November 17, 2011) and is not repeated here. The Navy has complied with the measures required in 50 CFR 216.174 and 216.175, as well as the associated 2010 LOA, and submitted the reports and other documentation required in the final rule and the 2010 LOA.

Comments and Responses

NMFS published a notice of receipt and request for public comments on November 17, 2011 (76 FR 71322). During the 30-day public comment period, NMFS received comments

from the Marine Mammal Commission (Commission), Cascadia Research Collective, and one individual generally opposed to Navy activities. Specific comments are addressed below.

Comment 1: The Commission recommends that NMFS ensure the regulations that govern the taking of marine mammals in the HRC are amended to allow for multi-year LOAs prior to renewing the LOA in question for a two-year period.

Response: The regulations that govern the taking of marine mammals in the HRC were amended on February 1, 2012 to allow for multi-year LOAs.

Comment 2: The Commission recommends that NMFS and the Navy investigate the underlying cause of the high rate of non-compliance with TDFDs being used and determine why it was not detected earlier.

Response: The Navy has not violated any provisions of their LOAs or rules. There were no prohibitions against using TDFDs in the earlier LOAs and rules issued to the Navy. The use of TDFDs was not identified in the Navy's initial LOA application and the explosives used in the mine neutralization training were treated as standard underwater detonations. Therefore, the use of TDFDs was not analyzed in the rulemaking and subsequent LOAs did not explicitly prohibit the use of TDFDs. After the Silver Strand Training Complex incident, the Navy's internal review of mine neutralization training events concluded that the original mitigation measures could not be effectively implemented when using TDFDs. As a result, the Navy suspended training with TDFDs on April 8, 2011 and required the use of "positive control" firing devices (with instant detonations) to ensure compliance with the mitigation measures prescribed in the 2011 LOA.

Comment 3: The Commission recommends that NMFS and the Navy jointly review the full scope of the applicable regulations and LOAs to ensure that the responsible Navy officials

are aware of, understand, and are in compliance with all mitigation, monitoring, and reporting requirements.

Response: NMFS and the Navy worked together closely to develop all mitigation, monitoring, and reporting measures for the Navy's MMPA authorizations and regulations applicable to military readiness activities. The mitigation, monitoring, and reporting measures set forth are still considered to provide the best practicable protection to marine mammals.

Comment 4: The Commission recommends that NMFS require the Navy to conduct empirical sound propagation measurements to verify the adequacy of the sizes of the exclusion zones for 5-, 10-, and 20-lb charges and to expand those zones and the buffer zones derived from those zones as necessary.

Response: In 2002, the Navy conducted empirical measurements of underwater detonations at San Clemente Island and at the SSTC in California. During these tests, 2-lb and 15-lb net explosive weight charges were placed at 6 and 15 feet of water and peak pressures and energies were measured for both bottom placed detonations and detonations off the bottom. The Navy found that, generally, empirically measured single-charge underwater detonations were similar to or less than propagation model predictions (DoN 2006).

In 2009, 2010, and 2011, the Navy embarked marine mammal observers and conducted visual surveys in the HRC during several mine neutralization training events as part of its marine mammal monitoring program (see Navy's HRC annual monitoring reports for further details: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>). The Navy will explore the value of adding field measurements during monitoring of a future mine neutralization event after evaluating the environmental variables affecting sound propagation in the area (e.g., shallow depths, seasonal temperature variation, bottom sediment composition). If such data can be

collected without unreasonable costs and impacts to training, the Navy will begin incorporating the measurements into the monitoring program for mine neutralization training in the HRC.

Comment 5: The Commission recommends that NMFS require the Navy to re-estimate the buffer zone sizes using the mean average swim speeds, plus at least one standard deviation for marine mammals that inhabit the shallow-water areas where TDFDs would be used.

Response: NMFS disagrees that the buffer zone sizes need to be re-estimated. The buffer zones already account for swim speeds above 3 knots by including at least an additional 200 yards when practicable. NMFS believes that there is a very low likelihood of an animal entering the buffer zone during the brief amount of time that exposure may occur without being detected. Given the Navy's available resources, and considering the small size of boats typically used for monitoring, the proposed buffer zones are the maximum distances that can be effectively monitored. Due to the type of training required during the use of TDFDs, the Navy has limited survey vessels and manpower available for monitoring. Scheduling additional vessels and crews would degrade the overall training readiness of the other unit(s) involved. If the Navy adopted a more precautionary swim speed and implemented larger buffer zones, surveillance resources could not be increased and the same number of boats would be spread out over a larger area, diluting the Navy's ability to effectively monitor the buffer zone.

It is worth noting that even in the absence of mitigation, the Navy's modeling suggests that zero animals are likely to randomly enter the safety radius in the small amount of times that the detonations actually occur. It is unlikely that an animal will swim into the zone during the brief amount of time that it might be exposed to a detonation without being detected by the multiple boats circling the detonation area and observing the buffer zone.

Comment 6: The Commission recommends that NMFS consider whether modifications to the LOAs alone are sufficient to satisfy the requirements of the MMPA and provide a thorough explanation of its rationale in the Federal Register notice taking final action on the proposed modifications, if it believes that regulatory modifications are not needed.

Response: The amount of incidental harassment authorized in the regulations governing mine neutralization in the HRC was based on thorough analyses and assessment of the Navy's activities and marine mammal distribution and occurrence in the vicinity of the action area. The estimated exposures are based on the probability of animals being present in the area when a training event is occurring, and this probability does not change based on the use of TDFDs or implementation of mitigation measures (i.e., the exposure model does not account for how the charge is initiated and assumes no mitigation is being implemented). The amount of harassment currently authorized and NMFS' determination of negligible impact on the stock already assume a conservative estimate of potential harassment for these events. The enhanced mitigation measures for the use of TDFDs are expected to balance the potential additional risks that may rise from the Navy using TDFDs during mine neutralization training. The potential effects to marine mammal species and stocks as a result of the proposed mine neutralization training activities are the same as those analyzed in the final rule governing the incidental takes for these activities. In summary, the take limits are not expected to be exceeded with the use of TDFDs, but the additional mitigation and monitoring measures should offset the potential risks of using TDFDs. Consequently, NMFS believes that the take estimates analyzed in the existing final rule do not change as a result of the Navy using TDFDs and further revisions to the final rule are not warranted.

Comment 7: Regarding the proposed listing of the insular stock of false killer whales, the Commission recommends that the Navy enter into a conference pursuant to 50 CFR 402.10 and consider requesting that the conference follow formal consultation procedures.

Response: A “conference” is designed to assist the NMFS Endangered Species Act Interagency Cooperation Division and any applicant in identifying and resolving potential conflicts at an early stage in the planning process. The Navy has requested initiation of formal conference with NMFS for the effect of Navy training activities in the HRC on Hawaii insular false killer whales.

Comment 8: The Cascadia Research Collective points out that since the HRC rulemaking was issued, multiple stocks within the HRC have been designated for three species. Separate island-associated populations are now recognized for common bottlenose and spinner dolphins and two stocks are designated for false killer whales. The Cascadia Research Collective recommends that potential impacts of takes be reanalyzed on a stock-by-stock basis, taking into account the spatial bias of Navy activities within the HRC.

Response: Since 2009, multiple stocks of bottlenose dolphin (Hawaii Pelagic; Kauai and Niihau; Oahu; 4-Island Region; and Hawaii Island), spinner dolphin (Hawaii Pelagic; Hawaii Island; Oahu and 4-Island Region; Kauai and Niihau; Kure and Midway; Pearl and Hermes Reef), and false killer whale (Pelagic and Insular) have been designated. The Navy has been working with NMFS’ science centers to evaluate potential methods for estimating impacts on a stock-by-stock basis. Current abundance data for common bottlenose dolphins does not allow for stock-by-stock analysis because of limited surveys and small sample sizes. There are currently no abundance estimates available for the six individual spinner dolphin stocks, so the status of all stocks has been combined when evaluating this species for management purposes.

The Navy has, however, developed an approach to evaluate potential impacts on each of the two stocks of false killer whales.

NMFS currently recognizes two stocks of false killer whale in Hawaiian waters: the Hawaii pelagic and the Hawaii insular stocks (Fornet et al. 2010; Oleson et al. 2010; Caretta et al. 2011). NMFS considers all false killer whales within 40 km (22 nm) of the Hawaiian Islands as belonging to the insular stock, all false killer whales beyond 140 km (76 nm) as belonging to the pelagic stock, and notes that the two stocks overlap between the 40 km and 140 km boundaries. This 100-km (54 n m) overlap area is approximately where the majority of Navy training and testing has historically occurred. Since the Navy anticipates that both populations of false killer whales may be equally encountered during Navy training in the HRC, NMFS and the Navy agreed that it is reasonable to treat both populations equally when estimating take. The Navy derived take numbers for each stock based on the best estimates of population size in the 2011 Pacific Stock Assessment Report. Population estimates were used in the analysis because the Navy's activities potentially overlap with each stock's entire range.

The Navy's current 2-year LOA authorizes 102 Level B harassments of false killer whales between January 15, 2012 and January 5, 2014 (an annual average of 51 animals). The Navy's new analysis resulted in an annual estimated 13 Level B harassments of false killer whales from the insular stock (the insular stock population is 26 percent of the total false killer whale population; 26 percent of 51 authorized takes = 13) and 38 Level B harassments of false killer whales from the pelagic stock (the pelagic stock population is 74 percent of the total false killer whale population; 74 percent of 51 authorized takes = 38). NMFS will issue a new LOA specifying the amount of authorized take for each stock.

Summary of Activity under the 2010 LOA

As described in the Navy's exercise reports (both classified and unclassified), in 2010, the training activities conducted by the Navy were within the scope and amounts authorized by the 2010 LOA and the levels of take remain within the scope and amounts contemplated by the final rule. The Navy conducted the monitoring required by the 2011 LOA and described in the Monitoring Plan, which included aerial and vessel surveys of sonar and explosive exercises by dedicated MMOs, as well as deploying acoustic recording devices and tagging marine mammals. The Navy submitted their 2011 Monitoring Report, which is posted on NMFS' website (<http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>), within the required timeframe. The Navy included a summary of the 2011 monitoring effort and results and the specific reports for each individual effort are presented in the appendices. Because data is gathered through August 1 and the report is due in October, some of the data analysis will occur in the subsequent year's report.

Modifications to Mitigation and Monitoring Measures Related to Mine Neutralization Training

NMFS worked with the Navy to develop a series of modifications to the Navy's mitigation measures to minimize the risk of injury and mortality to marine mammals during the use of TDFDs. The following modifications are specific to mine neutralization training events conducted within HRC:

Mitigation Measures for Underwater Detonations Using Positive Control (RFDs)

1. Underwater detonations using positive control devices will only be conducted during daylight hours.
2. A mitigation zone of 700 yd will be established around each underwater detonation point.

3. A minimum of two boats will be deployed. One boat will act as an observer platform, while the other boat will typically provide diver support.

4. Two observers with binoculars on one small vessel will survey the detonation area and the mitigation zone for marine mammals beginning at least 30 min prior to the scheduled explosive event and lasting until at least 30 min following detonation.

5. In addition to the dedicated observers, all divers and boat operators engaged in detonation events can potentially monitor the area immediately surrounding the point of detonation for marine mammals.

6. If a marine mammal is sighted within the 700-yd mitigation zone or moving towards it, underwater detonation events will be suspended until the marine mammal has voluntarily left the area and the area is clear of marine mammals for at least 30 min.

7. Immediately following the detonation, visual monitoring for marine mammals within the mitigation zone will continue for 30 min. Any marine mammal observed after the underwater detonation either injured or exhibiting signs of distress will be reported via Navy operational chain of command to Navy environmental representatives from U.S. Pacific Fleet, Environmental Office. Using Marine Mammal Stranding communication trees and contact procedures established for the HRC, the Navy will report these events to the Stranding Coordinator of NMFS' Pacific Islands Regional Office. These reports will contain the date and time of the sighting, location, species description, and indication of the animal's status.

Mitigation Measures for Underwater Detonations Using TDFDs

The Navy's mitigation zones will be divided into three distances to further minimize risk of marine mammal injury or mortality and to achieve a more practical execution of mitigation measures. The Navy will divide the span of training events into those requiring a 1,000-yd

buffer zone (2 boats) and those requiring a 1,400-yd or greater buffer zone (2 boats and 1 helicopter). This was determined by rounding the Navy-modeled “underwater zones of influence” to the appropriate range category (1,000, 1,400, and 1,500) (Table 1). Training events requiring a 1,000-yd buffer zone would utilize a minimum of two boats for monitoring purposes. Training events requiring a 1,400 or 1,500-yd buffer zone would use a minimum of three boats or two boats and one helicopter for monitoring purposes. See the proposed LOA (76 FR 71322, November 17, 2011) for a more detailed description of how the Navy developed the new buffer zones. The mitigation measures for underwater detonations using TDFDs are summarized below.

Charge Weight (lb)	Timed-Delay					
	5 min	6 min	7 min	8 min	9 min	10 min
5	1,000 yd	1,000 yd	1,000 yd	1,000 yd	1,400 yd	1,400 yd
10	1,000 yd	1,000 yd	1,000 yd	1,400 yd	1,400 yd	1,400 yd
15-29	1,000 yd	1,000 yd	1,400 yd	1,400 yd	1,500 yd	1,500 yd

Table 1. Mitigation zone radii for TDFDs based on size of charge and length of timed-delay.

1,000 yd = minimum of two observation boats

1,400 and 1,500 yd = minimum of three observation boats or two boats and one helicopter

1. Underwater detonations using TDFDs will only be conducted during daylight hours.
2. Time-delays longer than 10 min will not be used. The initiation of the device will not start until the appropriate mitigation area is clear for a full 30 min prior to initiation of the timer.
3. A monitoring/mitigation zone will be established around each underwater detonation location, as indicated in Table 1, based on charge weight and length of time-delay used. When conducting surveys, boats will position themselves near the mid-point of the mitigation zone radius (but always outside the detonation plume/human safety zone) and travel in a circular pattern around the detonation location, surveying both the inner and outer areas. To the best extent practical, boats will try to maintain a 10-knot search speed to ensure adequate coverage of

the mitigation zone. However, weather conditions and sea states may require slower speeds in some instances.

4. TDFD detonations with a mitigation zone of 1,000 yd:

- A minimum of two boats will be used to survey for marine mammals at a distance of 1,000 yd.
- Each boat will be positioned on opposite sides of the detonation location, separated by 180 degrees.

5. TDFD detonations with a mitigation zone of $\geq 1,400$ yd:

- A minimum of three boats or two boats and one helicopter will be used to survey at distances $\geq 1,400$ yd.
- When using at least three boats, each boat will be positioned equidistant from one another (120 degrees separation for three boats, 90 degrees separation for four boats, etc.)
- A helicopter, if available, can be used in lieu of one of the required boats. A helicopter search pattern is dictated by standard Navy protocols and accounts for multiple variables, such as the size and shape of the search area, size of the object being searched for, and local environmental conditions.

6. Two dedicated observers in each boat will conduct continuous visual surveys of the monitoring zone for the duration of the training event.

7. Monitoring zones will be surveyed beginning 30 min prior to detonation and for 30 min after detonation.

8. Other personnel besides boat observers may also maintain situational awareness of marine mammal presence within the monitoring zones to the best extent practical, given dive

safety considerations. Divers placing the charges on mines will observe the immediate underwater area around a detonation site for marine mammals and report sightings to surface observers.

9. If a marine mammal is sighted within an established mitigation zone or moving towards it, underwater detonation events will be suspended until the marine mammal voluntarily leaves the area and the area is clear of marine mammals for at least 30 min.

10. Immediately following the detonation, visual monitoring for affected marine mammals within the monitoring zone will continue for 30 min.

11. Any marine mammal observed after an underwater detonation either injured or exhibiting signs of distress will be reported via Navy operational chain of command to Navy environmental representatives from U.S. Pacific Fleet, Environmental Readiness Office. Using Marine Mammal Stranding communication trees and contact procedures established for the HRC, the Navy will report these events to the Stranding Coordinator of NMFS' Pacific Islands Regional Office. These reports will contain the date and time of the sighting, location, species description, and indication of the animal's status.

Take Estimates

The additional mitigation and monitoring measures mentioned above will increase the buffer zone to account for marine mammal movement and increase marine mammal visual monitoring efforts to ensure that no marine mammal will be in a zone where injury and/or mortality could occur as a result of time-delayed detonation. Furthermore, the estimated exposures are based on the probability of the animals occurring in the area when a training event is occurring, and this probability does not change based on the use of TDFDs or implementation of mitigation measures (i.e., the exposure model does not account for how the charge is initiated

and assumes no mitigation is being implemented). The potential effects to marine mammal species and stocks as a result of the proposed mine neutralization training activities are the same as those analyzed in the final rule governing the incidental takes for these activities.

Consequently, NMFS believes that the take estimates analyzed in the existing final rule do not change as a result of the modified LOA which includes mine neutralization training activities using TDFDs.

Analysis and Negligible Impact Determination

Pursuant to NMFS' regulations implementing the MMPA, an applicant is required to estimate the number of animals that would be "taken" by the specified activities (for example, takes by harassment or injury). This estimate informs the analysis that NMFS must perform to determine whether the activity would have a "negligible impact" on the species or stock. Level B (behavioral) harassment occurs at the level of the individual(s) and does not assume any resulting population-level consequences, though there are known avenues through which behavioral disturbance of individuals can result in population-level effects. A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (population-level effects). An estimate of the number of Level B harassment takes, alone, is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be "taken" through behavioral harassment, NMFS must consider other factors, such as the likely nature of any responses (their intensity, duration, etc.), the context of any responses (critical reproductive time or location, migration, etc.), or any other variables (if known), as well as the number and nature of estimated Level A takes, the number of estimated mortalities, and effects on habitat.

Based on the analysis of the potential impacts from the proposed mine neutralization training exercises conducted within the HRC, which includes the modification of marine mammal monitoring and mitigation measures intended to minimize the risk of exposure to explosive detonations during the use of TDFDs, NMFS has determined that the modification of the Navy's LOA to include taking of marine mammals incidental to mine neutralization training using TDFDs will have a negligible impact on the marine mammal species and stocks present in the action area, provided that the additional mitigation and monitoring measures described above are implemented.

Endangered Species Act (ESA)

There are seven marine mammal species listed as threatened or endangered under the ESA with confirmed or possible occurrence in the HRC: blue whale (Balaenoptera musculus), north Pacific right whale (Eubalaena japonica), humpback whale (Megaptera novaeangliae), sei whale (Balaenoptera borealis), fin whale (Balaenoptera physalus), sperm whale (Physeter macrocephalus), and Hawaiian monk seal (Monachus schauinslandi). Pursuant to section 7 of the ESA, NMFS has consulted internally on the issuance of the modified LOA under section 101(a)(5)(A) of the MMPA for these activities. Consultation was concluded on January 10, 2012.

National Environmental Policy Act (NEPA)

NMFS participated as a cooperating agency on the Navy's Final Environmental Impact Statement (FEIS) for the HRC. NMFS subsequently adopted the Navy's FEIS for the purpose of complying with the MMPA. NMFS has determined that there are no changes in the potential effects to marine mammal species and stocks as a result of the mine neutralization training

events using TDFDs. Therefore, no additional NEPA analysis is required and the information in the existing FEIS remains sufficient.

Authorization

NMFS has determined that the marine mammal takes resulting from the 2011 military readiness training and research activities falls within the levels previously anticipated, analyzed, and authorized. Further, the level of taking authorized in 2012 and 2013 for the Navy's HRC training and research activities is consistent with our previous findings made for the total taking allowed under the HRC regulations. Finally, the record supports NMFS' conclusion that the total number of marine mammals taken by the 2012 and 2013 HRC activities will have no more than a negligible impact on the affected species or stock of marine mammals and will not have an unmitigable adverse impact on the availability of these species or stocks for taking for subsistence uses. Accordingly, NMFS has issued a 2-year LOA for Navy training and research activities conducted in the HRC from January 15, 2012, through January 5, 2014.

Dated: February 17, 2012.

James H. Lecky,
Director, Office of Protected Resources,
National Marine Fisheries Service.

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